ABSTRACT OF THE DISCLOSURE

[57] A method and system for distributing factory finished goods to customer locations in a volume-based fair share mode prioritizes requests for parts from inventory, and also prioritizes customer locations that have needs for these parts. A shipment plan is formed by iteratively: assigning a defined minimum size allotment of the parts to the location assigned the current highest priority, and re-assigning the priorities of the locations. This is done until all of the requested parts from inventory have been assigned or no location needs more of the parts assigned.